

WHAT IS CLAIMED IS:

1. A system for teleconferencing comprising:
three or more user terminals, each having an audio input and an audio output;
a telecommunications network interconnecting said user terminals and operable to
transport data to and from said user terminals;
separate modular mixing software for each respective user terminal, executing on
said telecommunications network, and operable:
to receive separate audio signals from said audio outputs of the others of said
user terminals; and
to combine said separate audio signals into a signal for said audio input of
said respective user terminal which correlates to the needs of said
respective user terminal.
2. A system as claimed in claim 1, further comprising:
modular connection management software for establishing interconnections between
said three or more user terminals and said separate modular mixing software,
including a connection proxy for each of said three or more user terminals and
said telecommunications network; and
each of said connection proxies executing on said system and being operable:
to represent its owner's interests in managing the teleconference by
recognizing the limitations of its resources.
3. A system as claimed in claim 2, further comprising:
a mapper for locating said separate modular mixing software for each respective user
terminal for execution on different routers of said telecommunications
network, trading off delay time in communicating data between routers with
computational power available in order to maintain quality of service.
4. A system as claimed in claim 3, wherein said telecommunications network
comprises multiple telecommunications networks with varied transport media
and protocols, each of said multiple telecommunications networks having its
own connection proxy.

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5. A system as claimed in claim 4, further comprising:
negotiation management software including a negotiation agent for each of said user terminals and said multiple telecommunications networks, each of said negotiation agents being operable:
to execute on said system; and
to representing the interests of each of said three or more user terminals in negotiating communication over said telecommunications network;
said negotiation management software being operable:
to identify negotiation agents participating in a negotiation;
to implement a negotiation discipline which allows each said participating negotiation agent to consider a communication contract and either accept or revise said communication contract; and
to respond to said negotiation being successful by executing said communication contract.
6. A system as claimed in claim 5, wherein said separate modular mixing software is operable to combine said separate signals into two or more audio channels which define a metaphorical physical space, each user terminal having a simulated position within said metaphorical physical space whereby individual users may be recognized by their particular position in said space.
7. A system as claimed in claim 6, wherein said mixer is responsive to a request from said respective user to emphasize a particular user's voice by amplifying the corresponding audio signal prior to combining.
8. A system as claimed in claim 7, wherein at least one of said user terminals comprises a personal computer having a stereo sound card and stereophonic speakers, and said respective mixer software is operable to combine said separate signals into two audio channels.

9. A system as claimed in claim 8, wherein at least one of said user terminals comprises a connection to a PSTN network via two monophonic telephone lines, and said respective mixer software is operable to combine said separate signals into two audio channels.
10. A system as claimed in claim 9, wherein each said connection proxy comprises:
multiple software agents each being operable to perform a specific task; and
a proxy object operable to instantiate particular ones of said multiple software agents in response to requirements of communications made over said telecommunications system.
11. A server for teleconferencing comprising:
means for interconnecting user terminals and transporting data to and from said user terminals;
means for executing separate modular mixing software for each respective user terminal, said separate modular mixing software including:
means for receiving separate audio signals from said audio outputs of the others of said user terminals; and
means for combining said separate audio signals into a signal for said audio input of said respective user terminal which correlates to the needs of said respective user terminal.
12. A method of teleconferencing comprising the steps of:
receiving, at a separate modular mixer representing a respective one of three or more user terminals and executing on a telecommunications network,
separate audio signals from audio outputs of the others of said user terminals;
and
combining said separate audio signals into a signal for an audio input of said respective user terminal which correlates to the needs of said respective user terminal.

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13. A computer data signal embodied in a carrier wave, said computer data signal comprising a set of machine executable code being executable by a computer to perform the steps of claim 12.
14. A computer readable storage medium storing a set of machine executable code, said set of machine executable code being executable by a computer server to perform the steps of claim 12.